



The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-81. (canceled).

82. (currently amended) An isolated human monoclonal antibody or fragment thereof which binds specifically to ~~an epitope of an osteoprotegerin binding protein, the epitope comprising at least part of the amino acid sequence~~ of Figure 4 (SEQ ID NO: 39), wherein the antibody or fragment thereof inhibits osteoclast formation.

83. (previously presented) The antibody of Claim 82 which comprises a recombinant antibody or fragment thereof.

84. (previously presented) The antibody of Claim 82 which binds specifically to an epitope on an extracellular domain of an osteoprotegerin binding protein or to an epitope on a fragment of an extracellular domain of an osteoprotegerin binding protein.

85. (currently amended) The antibody of Claim 82 which binds specifically to ~~an epitope comprising at least part~~ an osteoprotegerin binding protein of amino acid residues 69-317 of Figure 4 (SEQ ID NO:39).

86. (currently amended) The antibody of Claim 82 which binds specifically to an epitope ~~which comprises at least part of the~~ on a BB' loop of an osteoprotegerin binding protein of Figure 4 (SEQ ID NO:39).

87. (currently amended) The antibody of Claim 82 which binds specifically to an epitope ~~which comprises at least part of the~~ on an EF loop of an osteoprotegerin binding protein of Figure 4 (SEQ ID NO:39).

88. (previously presented) The antibody of Claim 82 which is present in an amount effective to inhibit bone resorption.

89. (previously presented) A composition comprising the antibody of Claim 82 and a pharmaceutically acceptable diluent, carrier, solubilizer, emulsifier, preservative and/or adjuvant.

90. (currently amended) The composition of Claim 89 further comprising a bone morphogenic factor ~~selected from the group consisting of BMP-1 to BMP-12~~, a transforming growth factor- β , a transforming growth factor- β family member, a fibroblast growth factor ~~selected from the group consisting of FGF-1 to FGF-10~~, an interleukin-1 inhibitor, a TNF α inhibitor, a parathyroid hormone, an E series prostaglandin, a bisphosphonate, or a bone-enhancing mineral.

91. (previously presented) The antibody of Claim 82 which is obtained by immunization with an osteoprotegerin binding protein comprising the amino acid sequence of Figure 4 (SEQ ID NO:39), a membrane associated form thereof, a soluble form thereof, or a fragment thereof.

92. (previously presented) The antibody of Claim 82 which is produced by expression of a nucleic acid encoding the antibody or fragment in a transformed or transfected host cell.